IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

| MEMORY INTEGRITY, LLC | |
|---|---------------------|
| Plaintiff, | |
| v. | Civil Action No |
| LENOVO GROUP LTD. AND LENOVO (UNITED STATES) INC. | JURY TRIAL DEMANDED |
| Defendants. | |

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Memory Integrity, LLC ("MI"), by way of this Complaint for Patent Infringement ("Complaint") against the above-named Defendants Lenovo Group Ltd. and Lenovo (United States) Inc. (collectively, "Lenovo" or "Defendants"), alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

THE PARTIES

- 2. Plaintiff MI is a limited liability company organized under the laws of the State of Delaware with a place of business at 1220 N. Market Street, Suite 806, Wilmington, Delaware 19801.
- 3. On information and belief, Defendant Lenovo Group Ltd. is a corporation organized under the laws of China with its principal place of business at No. 6 Chuang Ye Road, Shandgdi Information Industry Base, Haidian District, Beijing 100085 China and has a registered agent for service of process at The Corporation Trust Company, 1209 Orange Street, Wilmington, DE 19801.

4. On information and belief, Defendant Lenovo (United States) Inc. is a corporation organized under the laws of the State of Delaware with its principal place of business at 1009 Think Place, Morrisville, NC 27560 and has appointed has appointed The Corporation Trust Company, Corporation Trust Center 1209 Orange St., Wilmington, DE 19801 as its agent for service of process.

JURISDICTION AND VENUE

- 5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338.
- 6. On information and belief, Defendant Lenovo (United States) Inc. is subject to the jurisdiction of this Court by virtue of the fact that it is organized under the laws of the State of Delaware. On information and belief, Defendants are subject to the jurisdiction of this Court by reason of their acts of patent infringement which have been committed in this Judicial District, and by virtue of their regularly conducted and systematic business contacts in this State. As such, Defendants have purposefully availed themselves of the privilege of conducting business within this Judicial District; have established sufficient minimum contacts with this Judicial District such that they should reasonably and fairly anticipate being haled into court in this Judicial District; and at least a portion of the patent infringement claims alleged herein arise out of or are related to one or more of the foregoing activities.
 - 7. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(c) and 1400(b).

JOINDER

8. Joinder is proper under 35 U.S.C. § 299. The allegations of infringement contained herein are asserted against the Defendants jointly, severally, or in the alternative and arise, at least in part, out of the same series of transactions or occurrences relating to Defendants' manufacture, use, sale, offer for sale, and importation of the same accused products. On information and belief, the Defendants are part of the same corporate family of companies, and

the infringement allegations arise at least in part from the Defendants' collective activities with respect to the Defendants' accused products. Questions of fact common to the Defendants will arise in the action, including questions relating to the structure and operation of the accused products, Defendants' infringing acts and, on information and belief, the validity of the patent-insuit.

THE PATENT-IN-SUIT

- 9. On November 13, 2007, United States Patent No. 7,296,121 (the "'121 Patent"), entitled "Reducing Probe Traffic in Multiprocessor Systems," was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '121 Patent is attached as Exhibit A to this Complaint.
- 10. MI is the assignee and owner of the right, title and interest in and to the '121 Patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 7,296,121

- 11. The allegations set forth in the foregoing paragraphs 1 through 9 are hereby realleged and incorporated herein by reference.
- 12. In violation of 35 U.S.C. § 271(a), Lenovo has directly infringed and continues to directly infringe, both literally and under the doctrine of equivalents, the '121 Patent by making, using, offering for sale, selling, and importing products (the "Accused Instrumentalities") and by performing methods that practice the subject matter claimed in one or more claims of the '121 Patent, including but not limited to claim 1, in the United States, including within this Judicial District, without the authority of MI. For example, Lenovo has directly infringed the '121 Patent by selling products that contain a multicore processor that utilizes a probe filtering unit to reduce

probe traffic in a computer system. The Accused Instrumentalities include, but are not limited to the Lenovo IdeaTab A1000 Tablet.

- 13. Lenovo has had actual knowledge of the '121 Patent and its infringement of that patent since at least the date of service of this Complaint.
- 14. Lenovo is also inducing infringement of the '121 Patent under 35 U.S.C. §
 271(b), since at least the date of service of this Complaint, by actively aiding and abetting others (including its direct and indirect customers) whose sale, offer for sale, importation, and use of the Accused Instrumentalities constitutes direct infringement. Lenovo has engaged in these actions with either the specific intent to cause infringement or with willful blindness to the infringement that it is causing. For example, Lenovo actions that actively induce its customers to directly infringe at least claim 25 of the '121 Patent include selling the Accused Instrumentalities, providing user manuals regarding use of the Accused Instrumentalities, and providing technical support regarding the use of the Accused Instrumentalities, where the use of the Accused Instrumentalities during normal operation by Lenovo's customers infringes at least claim 25 of the '121 Patent. The use of the Accused Instrumentalities identified above during normal operation directly infringes claim 25 of the '121 Patent in at least the following manner:
 - (a) The Accused Instrumentalities comprise a plurality of processing nodes because they contain multicore processors. The cores are connected in a point-to-point architecture and each core has an associated L1 cache memory;
 - (b) One of the processor cores requests access to a memory line by transmitting a probe to the Snoop Control Unit (the probe filtering unit);

- (c) The Snoop Control Unit evaluates the probe using a copy of the L1 data cache tag RAMs which is representative of the states associated with selected L1 caches to determine whether a valid copy of the memory line is in any of the L1 caches;
- (d) The Snoop Control Unit transmits the probe only to selected ones of the cores identified in the evaluating step;
- (e) The Snoop Control Unit accumulates responses from the selected cores; and
- (f) The Snoop Control Unit responds to the original request from the first core.
- U.S.C. § 271(c) since at least the date of service of this Complaint by importing and selling the Accused Instrumentalities to others, including but not limited to its customers, knowing and/or being willfully blind to the fact that these products constitute a material part of the invention, were especially made or especially adapted for use in an infringement of the '121 Patent, and have no substantial non-infringing uses. For example, the Accused Instrumentalities constitute a material part of the claimed invention at least because they contain all of the components that perform the method of reducing probe traffic in a computer system as claimed in claim 25 of the '121 Patent. The Accused Instrumentalities were made or especially adapted for use in an infringement of the '121 Patent and have no substantial non-infringing uses at least because they contain components whose only purpose is to reduce probe traffic in a computer system as claimed in claim 25 of the '121 Patent. The use of the Accused Instrumentalities identified above by Lenovo's customers during normal operation directly infringes claim 25 of the '121 Patent in at least the following manner:

- (a) The Accused Instrumentalities comprise a plurality of processing nodes because they contain multicore processors. The cores are connected in a point-to-point architecture and each core has an associated L1 cache memory;
- (b) One of the processor cores requests access to a memory line by transmitting a probe to the Snoop Control Unit (the probe filtering unit);
- (c) The Snoop Control Unit evaluates the probe using a copy of the L1 data cache tag RAMs which is representative of the states associated with selected L1 caches to determine whether a valid copy of the memory line is in any of the L1 caches;
- (d) The Snoop Control Unit transmits the probe only to selected ones of the cores identified in the evaluating step;
- (e) The Snoop Control Unit accumulates responses from the selected cores; and
- (f) The Snoop Control Unit responds to the original request from the first core.
- 16. MI has been harmed by Lenovo's infringing activities.

JURY DEMAND

MI demands a jury trial on all issues and claims so triable.

PRAYER FOR RELIEF

WHEREFORE, MI prays for judgment as follows:

- a. An adjudication that Lenovo has infringed the '121 patent;
- b. An award of damages to be paid by Lenovo adequate to compensate MI for past infringement of the '121 Patent, and any continuing or future infringement through the date such judgment is entered, including prejudgment and post-judgment interest, costs, expenses

and an accounting of all infringing acts including but not limited to those acts not presented at trial;

- c. An order that Lenovo pay an ongoing royalty in an amount to be determined for any continued infringement after the date judgment is entered; and
- d. Such further relief at law and in equity as the Court may deem just and proper.

Dated: November 1, 2013 STAMOULIS & WEINBLATT LLC

/s/ Richard C. Weinblatt

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